Exhibit 1

Docket No.:   1454.1808

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Stefan BERNDT et al.

Serial No. 11/662,978   Group Art Unit: 2465

Confirmation No. 2525

Filed: March 16, 2007   Examiner: Ho, Duc Chi

For: MONITORING CONDITION OF NETWORK WITH DISTRIBUTED COMPONENTS

<u>AMENDMENT</u>

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

This is in response to the Office Action mailed January 26, 2010, and having a period for response set to expire on April 26, 2010.

The following amendments and remarks are respectfully submitted. Reconsideration of the claims is respectfully requested.

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AMENDMENTS TO THE DRAWINGS:

In the Office Action, on page 2, the Examiner objected to the drawings. In order to overcome these objections, a replacement sheet is submitted herewith. In Figure 3, a "Related Art" legend has been added. Approval of these changes to the Drawings is respectfully requested.

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IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with <u>underlining</u> and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND the claims in accordance with the following:

Claims 1-17 (Cancelled)

18. (Currently Amended) A method for monitoring a system condition of a network with distributed components organized in a logical ring structure, comprising ~~in each component of the system~~:

each component in the system monitoring only a <u>single</u> respective neighboring component in the logical ring structure to determine a current condition of the respective neighboring component; and

<u>each component in the system</u> informing <u>all</u> other components of the system about the current condition of the respective neighboring component when the current condition corresponds to at least one predefined condition.

19. (Previously Presented) The method as claimed in claim 18, wherein the at least one predefined condition is at least one of a functional incapacity corresponding to an offline condition and a functional capacity corresponding to an online condition.

20. (Previously Presented) The method as claimed in claim 19, wherein at least one of said monitoring of the respective neighboring component and determination of the current condition of the respective neighboring component is carried out based on a leasing method.

21. (Previously Presented) The method as claimed in claim 20, wherein with regard to the leasing method, an "Alive" message is sent from the respective neighboring component.

22. (Previously Presented) The method as claimed in claim 21, wherein the "Alive" information is sent periodically.

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23. (Previously Presented) The method as claimed in claim 22, wherein the functional incapacity of the neighboring component is determined if the respective neighboring component does not send any "Alive" information for a predetermined period of time.

24. (Currently Amended) The method as claimed in claim 23, wherein said informing all the other components about the predefined condition of the respective neighboring component is carried out using an "Inform All" method.

25. (Previously Presented) The method as claimed in claim 24, further comprising, with regard to the "Inform All" method, performing an acknowledgment process by each of the other components, in which each of the other components, if it has received information about the predefined condition of the respective neighboring component, confirms receipt of the information, by sending an "Acknowledgment" message.

26. (Previously Presented) The method as claimed in claim 25, wherein the "Acknowledgment" message is sent to the component which has determined the predefined condition of the respective neighboring component.

27. (Previously Presented) The method as claimed in claim 26, further comprising determining the predefined condition for any component which does not acknowledge the receipt of the information about the predefined condition of the respective neighboring component.

28. (Previously Presented) The method as claimed in claim 27, further comprising in each component storing a local list of conditions of the other components.

29. (Previously Presented) The method as claimed in claim 28, wherein the respective neighboring component is one of a predecessor component and a successor component in the logical ring structure.

30. (Previously Presented) The method as claimed in claim 29, wherein the network is one of a stationary communication network and a telephone network and the components are communication servers.

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31. (Currently Amended) At least one computer-readable data medium encoded with at least one computer program that when executed by at least one processor performs a method comprising:

each component in a logical ring structure monitoring only a single neighboring component in the logical ring structure to determine a current condition of the neighboring component; and

each component in the logical ring structure informing all other components of the system about the current condition of the neighboring component when the current condition corresponds to a predefined condition.

32. (Currently Amended) A network with distributed components, comprising:

components organized in a logical ring structure, each component monitoring only a single respective neighboring component in the logical ring structure to determine a current condition of the respective neighboring component and informing all other components of said network when the current condition of the respective neighboring component corresponds to a predefined condition.

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REMARKS

Status of the Claims

The Office Action mailed January 26, 2010 noted that claims 18-32 were pending and rejected all claims. Claims 18, 24, 31 and 32 are amended. No claims are cancelled. No new claims are added. No new matter is believed to be presented.

It is respectfully submitted that claims 18-32 are pending and under consideration.

Objection to the Drawings

The Office Action, on page 2, objected to Figure 3 under MPEP 608.02(g). As noted above, a Replacement Sheet is submitted herewith and it is respectfully submitted that the objection is overcome.

Rejection under 35 U.S.C. § 103(a)

The Office Action, on page 2, rejected claims 18-29 and 31-32 under 35 U.S.C. § 103(a) as being unpatentable over Jahanian and Ogier. The Office Action, on page 5, rejected claim 30 as being unpatentable over Jahanian, Ogier and APA. These rejections are respectfully traversed below.

Jahanian discusses a suite of processing group membership protocols and their implementation. Jahanian discusses three protocols including weak, strong and hybrid membership and common features of all three membership protocols. Every processor gets assigned a unique identifier based on its network address and an instance number which changes each time the processor changes state relative to the membership system. Furthermore, a group leader is chosen and every member of a group has two neighbors which it exchanges heartbeats with. Failures are determined based on missed heartbeats. (See Jahanian, pages 1 and 4 and Figure 1). The Office Action admitted that Jahanian does not discuss all features recited in claim 18 but asserted that Ogier cures the deficiencies of Jahanian.

Ogier is related to a link-state routing protocol for ad-hoc networks and discusses a method and apparatus for disseminating topology information and discovering new neighboring nodes in a tree-like structure. Furthermore, Ogier discusses that neighbor discovery is via differential "HELLO" messages which report only status changes in neighbors. Ogier discusses that each node will compute a source tree which provides paths to all reachable nodes in the

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tree based on partial topology stored in the node. Each node only reports part of its source tree to neighbors. (See Ogier, Abstract and paragraph [0014]).

In light of the above, it is respectfully submitted that claim 18 patentably distinguishes over Jahanian and Ogier. Claim 18, as an example, is amended to clarify distinctive features not discussed or described by Jahanian and Ogier. It is respectfully submitted that nothing cited or found in Jahanian and Ogier, taken alone and in combination, discusses "each component in the system monitoring only a single respective neighboring component" and "each component in the system informing all other components of the system about the current condition of the respective neighboring component." As noted above, Jahanian discusses that every member of a group exchanges heartbeats with two neighbors in two directions around the ring, but claim 18 recites "each component in the system **monitoring only a single** respective neighboring component." In other words, by only monitoring a single respective neighboring component, messages on the order of O(n) is required, as opposed to the combination of Jahanian and Ogier.

Additionally, one of ordinary skill in the art would not have been motivated to combine the teachings of Jahanian with the teachings of Ogier. Ogier is related to determining neighboring nodes in a tree-like structure unlike Jahanian which discusses determining membership in a ring structure. As a result, one of ordinary skill in the art would not have been motivated to combine the teachings of Ogier with the admittedly defective teachings of Jahanian. Therefore, it is respectfully submitted Jahanian and Ogier, taken alone and in combination, do not discuss or teach "each component in the system monitoring only a single respective neighboring component" and "each component in the system informing all other components of the system about the current condition of the respective neighboring component."

Therefore, claim 18 patentably distinguishes over Jahanian and Ogier, taken alone and in combination.

Claim 31 patentably distinguishes over Jahanian and Ogier, taken alone and in combination, because nothing cited or found discusses "each component in a logical ring structure monitoring only a single neighboring component in the logical ring structure" and "each component in the logical ring structure informing all other components of the system about the current condition of the neighboring component."

Claim 32 patentably distinguishes over Jahanian and Ogier, taken alone and in combination, because nothing cited or found discusses "each component monitoring only a single respective neighboring component in the logical ring structure…and informing all other

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components of said network when the current condition of the respective neighboring component corresponds to a predefined condition."

The dependent claims depend from the above-discussed independent claims and are patentable over the cited references for the reasons discussed above. The dependent claims also recite additional features not taught or suggested by the cited references. For example, claim 27 recites "determining the predefined condition for any component which does not acknowledge the receipt of the information about the predefined condition of the respective neighboring component." In particular, the Office Action referred to Ogier without providing any specific citation within Ogier. MPEP § 702.02(j) states that it is important for an Examiner to properly communicate the basis for a rejection so that the issues can be identified early and the applicant can be given fair opportunity to reply. In this situation, Applicants have not been given a fair opportunity to reply because nothing in particular was cited in Ogier. Furthermore, the Office Action has failed to establish a *prima facie* case of obviousness for at least claim 27 because of the rejection's failure to adequately communicate where in the cited references <u>each and every claimed feature is taught or suggested</u>. The Office Action also failed to cite to a specific section in Jahanian with respect to its rejection of claims 19, 20, 21 and 23. Applicants, at the very least, respectfully request a new non-final Office Action properly communicating rejections of all claims so that Applicants are provided a fair opportunity to reply.

Additionally, it is submitted that nothing found in Ogier discusses the features of claim 27. The Office Action merely stated "in Ogier, a change in topology or link-state corresponds to a predefined condition for which an ACK has not been received." However, claim 27 recites "determining the predefined condition for any component which does not acknowledge the receipt of the information about the predefined condition of the respective neighboring component." Ogier does not discuss determining the predefined condition for any component which does not acknowledge the receipt of information. Ogier does not discuss such determining as in claim 27. Furthermore, claim 23 recites "the functional incapacity of the neighboring component is determined if the respective neighboring component does not send any "Alive" information for a predetermined period of time." Nothing found in Jahanian discusses this feature because Jahanian fails to discuss "the respective neighboring component" as in claim 23. Finally, claim 24 distinguishes over Ogier's HELLO message because claim 24 recites an "Inform All" method. Ogier does not say that all are informed by the single respective neighboring component with one "Inform All" message, but simply that all neighbors are informed without providing any additional details. It is submitted that the dependent claims are independently patentable over the cited references.

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Withdrawal of the rejections is respectfully requested.

Summary

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: _____4-26-10_____   By: _____

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